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EXAMINER

STULTZ, JESSICA T

ART UNIT

PAPER NUMBER

2873

DATE MAILED: 07/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

10/090,321

Applicant(s)

WEHRMANN ET AL.

Examiner

Jessica T Stultz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The information disclosure statement filed March 4, 2002 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent or document listed that is not in the English language. Specifically, the German reference referred to therein has not been considered.

The US patents in this information disclosure statement have been considered and placed in the file.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-2 (and therefore dependent claims 3-12) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the phrase “an electro-optically active layer” is unclear because it is unclear as to whether this layer can be part of the two electrically conductive substrates. From what is described in the specification and for examination purposes it is assumed that the “electro-optically active layer” can be part of one of the conductive substrates.

Claim 2 recites the limitation "the transparent conductive layer" in claim 1. There is insufficient antecedent basis for this limitation in the claim. Specifically, there is no “transparent

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conductive layer” claimed in claim 1, for purposes of examination, it is assumed that the meaning is “the electrically conductive layer”.

Claims 3-12 are rejected because they inherit the indefiniteness of the claims from which they depend.

### ***Claim Objections***

Claims 7 and 10 are objected to because of the following informalities: Specifically regarding claim 7, the phrase “wherein the plastic is” should be “wherein the transparent substrate comprises a plastic, wherein the plastic is”. Regarding claim 10, the phrase “and/or chemical-resistant finish” is objected to because it is unclear as to whether the substrate is provided with both scratch and chemical resistant finishes or just one of them. For purposes of examination, the assumed meaning is “or chemical-resistant finish, or both”. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 6-9, and 11-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Jacobsen et al.

Regarding claim 1, Jacobsen et al discloses a layer arrangement comprising: at least one transparent substrate having an electrically conductive layer (Column 3, lines 31-34 and Column

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4, lines 42-56, wherein the clear top electrode "16" can have an electrically conductive layer, Figures 1-9), an electro-optically active layer (Column 9, lines 34-50, wherein the light-emitting layer "10" is electro-optically active as described, or Column 4, lines 11-13 and 42-56, wherein the electrophoretic layer "14" is also considered an electro-optically active layer, Figure 6), and an additional substrate having an electrically conductive layer (Column 4, lines 1-56, wherein the light emitting substrate layer "10" has a photoconductive layer "12", Figures 1-9), wherein at least one of the two electrically conductive substrates is coated with an organic conductive polymer system (Column 4, lines 1-56, wherein both the light emitting substrate layer "10" and the photoconductive layer "12" are organic conductive polymers and therefore the substrate "10" would inherently have a coating of an organic conductive polymer, Figures 1-9).

Regarding claim 2, Jacobsen et al further discloses that the electrically conductive layer on the substrate comprises a metal oxide (Column 3, lines 31-34 and Column 4, lines 42-56, wherein the clear top electrode "16" can have an electrically conductive layer, specifically indium tin oxide, Figures 1-9).

Regarding claim 3, it is inherent from Jacobsen et al that the metal oxide is doped, this being reasonably based upon the fact that tin is doped onto indium oxide to make indium tin oxide (ITO).

Regarding claim 6, Jacobsen et al further discloses that the transparent substrate comprises plastic or glass (Column 3, lines 32-34, wherein the top electrode "16" can be glass or plastic, Figures 1-9).

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Regarding claim 7, Jacobsen et al further discloses that the transparent substrate is made of plastic, wherein the plastic is polyester (Column 4, lines 45-47, wherein the top electrode "16" can be made of polyester, Figures 1-9).

Regarding claim 8, Jacobsen et al further discloses that both of the substrates are plastic (Column 4, lines 45-47, wherein the top electrode "16" can be plastic and Column 5, lines 54-60, wherein the light-emitting layers can be made of plastic, Figures 1-9).

Regarding claim 9, Jacobsen et al further discloses that the substrates are made of plastic, wherein the plastic is polyester (Column 4, lines 45-47, wherein the top electrode "16" can be made of polyester and Column 5, lines 54-60, wherein the light-emitting layers can be made of polyester, Figures 1-9).

Regarding claim 11, Jacobsen et al further discloses that the electro-optically active layer is a liquid-crystal layer (Column 4, line 57-Column 5, line 9).

Regarding claim 12, Jacobsen et al further discloses that the arrangement is encapsulated (Column 3, line 66-Column 4, line 1).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobsen et al in view of Fix et al.

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Regarding claim 4, Jacobsen et al discloses a layer arrangement as disclosed above, but does not specifically disclose that the organic conductive polymer system is a polyaniline, polypyrrole, or polythiophene system. Fix et al teaches of a layer arrangement with electro-optical properties (Column 22, lines 1-8) with an organic conductive polymer system wherein the polymer is polyaniline (Column 2, lines 3-6) for the purpose of having an optically neutral material (Column 2, lines 3-6). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the organic conductive polymer system to be polyaniline since Fix et al teaches of a layer arrangement with electro-optical properties with an organic conductive polymer system wherein the polymer is polyaniline for the purpose of having an optically neutral material.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobsen et al.

Regarding claim 10, Jacobsen et al discloses a layer arrangement as disclosed above, but does not specifically disclose that the plastic substrate is provided with a scratch-resistant or chemical-resistant finish, or both. However, it is obvious to one having ordinary skill in the art at the time the invention was made that the plastic substrate be provided with a scratch-resistant or chemical-resistant finish, or both, since it is well known in the art of industrial plastics for the plastic to be covered with a finish which is either scratch or chemical resistance in order to lengthen the lifetime of the product.

***Allowable Subject Matter***

Claim 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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The following is an examiner's statement of reasons for allowance: none of the prior art alone or in combination disclose or teach of the claimed combination of limitations to warrant a rejection under 35 USC 102 or 103.

Specifically regarding claim 5, none of the prior art alone or in combination disclose or teach of a layer arrangement as disclosed above specifically wherein the organic conductive polymer system is a cationically charged polythiophene with the claimed structural units.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gates et al and Westfall et al read on the claimed invention but were not used in the above rejections because the rejections would be redundant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica T Stultz whose telephone number is (703) 305-6106. The examiner can normally be reached on M-Th 7:30-5, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 703-308-4883. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



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Jessica Stultz  
June 26, 2003

*Jessie* *Stultz*

*JSP*

JORDAN SCHWARTZ  
PRIMARY EXAMINER